



## The Science of Health, Nutrition and Fitness

### A Summary of the Most Popular Diets and Fads

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It seems that every year a celebrity or a nutritional guru pronounces that 'this' diet and 'that' diet will meet your weight loss goals. There are many theories behind diet implementation and the plethora of diet regimens is unfathomable. Creative Fitness will now take a look at some of the main diet concepts and provide a brief overview of their potential benefits.

#### The 5:2 Diet

Covered in other sections of this website, the 5:2 is a calories restriction diet that attempts to create fat loss through utilisation of natural starvation responses. Created by Dr Michael Mosley the diet involves the participant restricting their calorie intake to approximately 500 calories a day for females and 600 calories a day for males, for a period of two days. On the other 5 days they eat a normal healthy calorie quotient.

The 5:2 diet is also thought to bestow other health benefits which are associated with intermittent style dieting regimens. Some of these theorised advantageous benefits are:

- **Increased Growth Hormone Secretion** – Blood levels of growth hormone may increase which can facilitate the fat burning process and also stimulate muscle gain. (K. Y. Ho et al, 1988) and (Hartman, M.L., 1992)
- **Reduced Insulin Levels** – When insulin levels are reduced; fat burning is enhanced (Heilbronn, L.K., 2005)
- **Improved Cellular Repair** – Autophagy is a normal physiological process in the body that deals with destruction of cells in the body. Intermittent food restriction can potentially increase this therapeutic neuronal response. (Alirezaei, M., 2010)

Studies are still not completely indicative that the 5:2 diet is a successful strategy to use. Although a lot of research is 'pro' restriction diet (Michelle, N. et al, 2011 and Arquin, H., 2012).

Creative Fitness's viewpoint is that if you are restricting calories and maintaining the same energy expenditure; then surely some form of weight loss will occur. The extent of the weight loss will be individually based and will be based on individuals accurately calculating the calories they consume why on this diet. However, outside of that factor, research certainly backs up the 'health giving' claims attributed to 'fasting' type diets and so the diet has some significance, considering that factor alone.

#### The Atkins Diet

Developed in 1972 by an individual called Dr Atkins, an eminent cardiologist; this diet is a carbohydrate restrictive diet. The theory behind this diet proposes that by consuming high amounts of protein and fat; in the form of meats, fish, eggs, nuts and seeds, changes occur in the physiological environment of the body which makes the cells choose fat as the predominant food source as opposed to carbohydrates.

This low carbohydrate diet has a twofold effect on the body. Firstly, blood sugars become reduced. This means that there is less glucose available to use as energy. As a result, your body turns to the back-up stored fuel source of fat. Secondly, less insulin is now secreted. This decreased insulin 'pool' inhibits the availability of the hormone that inhibits fat burning (lipolysis)

There is a lot of research that concurs with low carbohydrate methodologies of dietary manipulation. Dyson, P.A. (2007), Yancy W.S. (2004) and Nordmann A.J. (2006) (reviews) to name a few. Indubitably there are counter research claims but through our investigations the weight of the research is in favour of low carbohydrate effectiveness in terms of weight loss and health benefits. Much of the criticism for this diet is focused on the negative health aspects of saturated fat increases due to the foods being recommended.



### **The Atkins Diet Restricts Carbohydrate Consumption**

### **The Mediterranean Diet**

The Mediterranean diet focuses on the foods consumed in countries such as Crete, Greece, and southern Italy. Approximately one third of the Mediterranean diet is derived from fat based foodstuffs. Saturated fats are kept to a minimum and generally don't exceed 10% of the overall dietary intake. The diet is associated with a high consumption of vegetables and olive oil and moderate consumption of protein. Fish is also emphasised as part of this diet; the benefits of fish as a health food are many and varied. The Mediterranean diet, as well as being used to lose fat weight; is highly recommended as a heart health method. Many of the foods consumed as part of this diet have antioxidant properties. Much of the research regarding the Mediterranean diet is concerned with its cardiovascular benefits. The majority of the research is pro dietary in respect of cardiovascular benefits (Estruch, R. et al, 2013; Salvadó, J. et al, 2008). Studies that determined weight loss effectiveness include Esposito K. (2011) and Shai, I. (2008).

There are many other dietary regimens that can be used with potential weight loss outcomes. We have just skimmed the surface within this article. But what this article does illustrate, is that anyone should scientifically analyse any diet. Consider the research and proposed effectiveness of the diet and weigh the benefits against the negatives. Then apply the diet using strict strategies. If you apply this simple formula, then maybe the diet will live up to your every expectation.

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